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ABSTRACT

This paper summarizes the history and impact of affirmative action in medical education. Affirmative action was introduced in the 1960s. From 1968-74, there was significant integration in medical education. The assassination of Martin Luther King was catalytic, and awareness of racial and class disparities in U.S. public health also spurred educators, the federal government, and the public to support efforts to increase the numbers of minority doctors. There was growing recognition that minorities were excluded from medicine and that the same minorities who traditionally experienced discrimination had the most acute medical needs and least access to care, thus creating a need for minority doctors. The federal government and private foundations helped medical schools' efforts to recruit, retain, and prepare minority medical students. Affirmative action initiatives of U.S. medical schools have been successful in three ways: (1) racial targeting dramatically increased minority enrollment; (2) the academic record of minorities in medical school has been good; and (3) minority physicians disproportionately serve disadvantaged patients. Project 3000 by 2000 is a campaign of U.S. medical schools to matriculate 3,000 under-represented minority students annually. After the project was launched, minority medical school enrollment increased 36 percent, then stabilized, then increased again in 1998. (Contains 39 endnotes.) (SM)

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CHAPTER 9

The Impact of Affirmative Action on Medical Education and the Nation's Health

TIMOTHY READY

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Introduction

Political and judicial assaults on the use of race-conscious affirmative action in higher education admissions have created a crisis for those of us concerned with diversity in the medical profession. The purpose of this paper is to summarize the history of affirmative action in U.S. medical education and the impact of that policy on medical schools and on the nation as a whole. That impact has been both dramatic and overwhelmingly positive.

The Origins of Affirmative Action in U.S. Medical Schools

It was not long ago that medical schools, like most other institutions in U.S. society, were highly segregated and overwhelmingly white. The progress of desegregation has been such that we tend to forget how recently the laws and customs that enforced racial stratification and injustice in this country were dismantled.

The military was the first major American institution to desegregate, after the Korean War in the 1950s. The last vestiges of segregation in the armed forces were not eliminated until 1965.[1] The segregation of public schools and colleges—perhaps the most insidious form of racial discrimination—has been illegal since the 1954 U.S. Supreme Court decision in *Brown v. Board of Education*, but widespread desegregation of schools did not occur until the 1960s. Substantial progress was made in the 1970s, yet

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segregation in elementary and secondary schools continues to this day, accompanied by gross inequalities in the availability of educational resources, including overall levels of funding, quality of the curriculum, and availability of skilled teachers.[2]

The G.I. Bill of 1944 opened the door to higher education for the first time for many low-income and minority veterans, although black veterans from the South still were barred from all but historically black colleges. G.I. Bill funds enticed many northern universities to admit minority veterans; often they waived or lowered admission requirements to accommodate soldiers returning from the war, and the newly enrolled veterans generally performed well academically.[3] Thus this intervention by the federal government, though not specifically racially targeted, gave many black, Latino, and Native American students the opportunity to enter professions generally associated with a middle-class standard of living.

President Kennedy coined the term "affirmative action" in 1961, but affirmative action itself did not play a major role in federal policy until 1965, when President Johnson issued Executive Order 11246. This order required institutions doing business with the federal government to develop plans to seek out and employ qualified underrepresented minorities. Reginald Wilson argues that affirmative action had its greatest impact on higher education between 1965 and 1975, and the record of diversity at U.S. medical schools confirms his observation.

As was true elsewhere in higher education, medical schools began to take affirmative actions during the late 1960s to correct policies and practices that had perpetuated a system of quasi-apartheid in medical education. Only 2.2 percent of all medical students in 1964 were black, and 76 percent of all black medical students were enrolled at either Howard or Meharry—the nation's two historically black medical schools.[4] The other eighty-one medical schools enrolled, on average, one black student every two years. In 1968, the first year that the Association of American Medical Colleges (AAMC) began systematically to collect data on minority[5] students, only three Native Americans, twenty Mexican Americans, three mainland Puerto Ricans, and 266 blacks were among the 9,963 students enrolled in first-year classes; Meharry and Howard were still enrolling 50 percent of all black medical students.

Between 1968 and 1974, the number of black students enrolled in first-year medical classes increased from 266 (2.7 percent of the total) to 1,106 (7.5 percent). In the same period, the number of Native American students increased from 3 to 71; Mexican Americans, from 20 to 227; and mainland Puerto Ricans, from 3 to 68. Between 1964 and 1974, the per-

TABLE 1 ***Average Annual Total and Excess Death in Blacks from Six Leading Causes of Mortality, U.S., 1979–1981***

Cause of Death	*Excess Deaths, Males and Females, Cumulative to Age 70*	
	Number	*Percent*
Heart disease and stroke	18,181	30.8
Homicide and accidents	10,909	18.5
Cancer	8,118	13.8
Infant mortality	6,178	10.5
Cirrhosis	2,154	3.7
Diabetes	1,850	3.1
Subtotal	47,390	80.4
All other causes	11,552	19.6

centage of all black students enrolled in the two historically black medical schools plummeted from 76 percent to 18 percent.[6]

The period from 1968 to 1974 brought significant integration in medical education. Why did this transformation happen so quickly? The assassination of Dr. Martin Luther King Jr. in 1968 was a catalytic event. It markedly heightened awareness of racial injustice in medical education and led to dramatic action. Despite the passage of civil rights laws prohibiting discrimination, medical schools had made little progress toward diversity. Beginning in 1968, they moved from a stance of race-neutral "receptive passivity" regarding minorities toward affirmative action to increase minority student outreach and enrollment.[7]

Awareness of racial and class disparities in the health of the American people also spurred medical educators, the federal government, and, to some extent, the public at large to support efforts to increase the number of minority doctors. For example, the difference in life expectancy between blacks and whites in 1970 was 7.6 years.[8,9] Although differences in socioeconomic status account for some of this gap, morbidity and mortality rates for blacks remain higher even after controlling for income. According to a landmark 1985 report by the Department of Health and Human Services, six causes of mortality accounted for more than 80 percent of the excess deaths for black Americans (see Table 1).[10]

Medical student activism after the assassination of Dr. King contributed to the heightened awareness of the injustice of maintaining policies

and practices that excluded blacks and other minorities from the medical profession. There was growing recognition as well that the same minority groups that had borne the brunt of discriminatory treatment throughout U.S. history had the most acute medical needs and the least access to medical care. It was believed that minority doctors would be more likely to practice in underserved communities and to understand the cultures, beliefs, and concerns of minority patients.

Other arguments for increasing minority enrollment in medical schools have more recently emerged:[11]

- Student diversity enhances the teaching and learning of medicine for all students.
- Diversity is needed to set an appropriately comprehensive research agenda. As noted by AAMC President Jordan Cohen,

> Our society as a whole is plagued by many unsolved health problems, many of which swirl disproportionately around our minority populations. Our country's research agenda is, in large measure, set by those who have chosen careers in investigation. Individual investigators, in turn, tend to do research on problems that they "see." And what people see and what tickles their fancy depends, to a great extent, on their particular cultural and ethnic filters. Recognizing all of these truths leads to the reality that finding solutions to our country's most recalcitrant health problems, even being able to conceptualize what those problems are, will require a research work force that is much more diverse racially, ethnically, and by gender than we have now. Creating that work force begins with ensuring diversity among those admitted to our M.D. and Ph.D. educational programs.[12]

- The need for minority representation in the leadership of the health-care industry. Health care accounts for one-seventh of the gross domestic product. Racial and ethnic diversity in medical schools is needed to ensure that minorities are not excluded from leadership positions in this major industry.
- Diversity in the leadership of the health-care industry is essential to delivering high-quality care. Recent studies have found that minority patients often receive care that is different from and often inferior to that received by other patients. These differences are found even when the economic circumstances, including insurance coverage, of minority and nonminority patients are similar.[13]

Government and Foundation Support for Diversity[14]

Both the federal government and private foundations helped medical schools' efforts to support the academic preparation of prospective minority medical students, as well as their recruitment to and retention in medical school. The Josiah M. Macy Foundation was a pioneer in these efforts. In 1966 it funded postbaccalaureate programs for minority college graduates who were interested in medicine but needed extra academic preparation to qualify. The following year, the Macy Foundation sponsored a series of influential conferences for medical educators.

The first major financial support ($5 million) for minority recruitment, enrichment, and retention activities came in 1967 from the U.S. Public Health Service through its Special Health Career Opportunity Grant Program. In 1971, this program would be renamed the Health Careers Opportunity Program. This and other Public Health Service programs continue to support efforts to increase enrollment of minority and disadvantaged students in medical schools and the health professions.

In 1969, the federal Office of Economic Opportunity allocated $1.5 million to establish offices of minority affairs at the AAMC and at fifty-six health professional schools—mostly schools of medicine. In 1970, an AAMC task force called for a short-term goal that 12 percent of all medical students be from racial and ethnic groups underrepresented in medicine. This goal was set in relation to the broader objective of having minority students' numbers in medical schools reflect their representation in the population at large. To achieve this goal, medical schools were to work closely with undergraduate colleges to ensure that minority college students knew about opportunities in U.S. medical schools. Schools also were to address the financial issues that prevented many minority students from studying medicine. Medical schools also were asked to ensure that their minority students had mentors and were tied into a system of social and academic support that would enable them to persist in their studies and to graduate.

The AAMC Executive Council's endorsement of the Minority Task Force report included the following statement:

> In developing new and modifying existing educational programs, medical school faculties should be aware that minority students, while not always as well prepared in the traditional sciences basic to medicine, bring to the profession special talents and views which are unique and needed. Educational programming for all medical students should be sufficiently flexible to allow individual rates of prog-

ress and individualized special instruction. With such programming, the opportunity for minority student success will be maximized.[15]

Since the late 1960s and early 1970s, the National Institutes of Health and the Robert Wood Johnson, Kellogg, and Kaiser foundations also have supported minority student recruitment, academic enrichment, or retention activities in medical schools.

Affirmative Action in Medicine Has Worked

There is no question that the affirmative action initiatives of U.S. medical schools begun in the 1960s have been successful, in three interrelated ways. First, these racially targeted programs and policies were in fact responsible for dramatically increasing minority student enrollment in medical school. Second, the minority students who entered medical school through these programs performed academically at levels comparable to those of other students admitted in traditional ways. Finally, those admitted to the medical profession through affirmative action have proved to be more likely to address the health-care needs of minority and disadvantaged patients than other doctors.

Racial targeting increased minority enrollment significantly. As noted above, minority enrollment in medical school increased dramatically from the mid-1960s to 1974, when it reached 9 percent of the first-year class. These gains occurred because of direct affirmative action, both by medical schools and by undergraduate colleges that took similar measures to increase minority enrollment. Thus the number of well-prepared minority applicants to medical schools also was increasing. Medical schools actively recruited minority students, sponsored educational enrichment programs for minorities, and broadened the criteria for admissions decisions.

On average, the Medical College Admission Test (MCAT) scores and grades of minority medical students of that era were not as high as those of white students, as is the case today.[16] Nevertheless, medical schools recognized the social and moral imperative of making medical education accessible to students from racial and ethnic groups that were both underrepresented and disadvantaged. Besides sponsoring educational enrichment programs for minority premedical students and providing support services for enrolled students to enhance retention, medical schools began to examine the importance of noncognitive variables to students' success. The AAMC developed and implemented the Simulated Minority Admission Exercise[17] to help admissions committees recognize factors

such as positive self-concept, ability to set long-term goals, realistic self-appraisal, and commitment to community service.

The rapid increase in minority enrollment between 1968 and 1974 leveled off in 1975. The numbers remained stagnant for the next fifteen years. Despite the continuation of most of the programs and policies from the previous era, minorities were more underrepresented in medical schools in 1990 than they were in 1974. Recognizing this pattern early on, the AAMC convened a second task force in 1978. Among its members was Louis Sullivan, dean of the newly created Morehouse School of Medicine, who in 1988 would become secretary of the Department of Health and Human Services under President Bush.

The 1978 task force found that the primary cause of the stagnation in minority enrollment was the small number of qualified minority applicants. It also noted that the goal of reaching 12 percent minority enrollment by 1975 was based on an

> overly optimistic assumption by the [1970] Task Force concerning the rate at which minority students would continue to be accepted from the minority applicant pool. The estimated admission rate of 75 percent for blacks in 1969–70 was never again achieved. The highest subsequent rate for black students was 57 percent in 1971. This rate dropped gradually to 38 percent in 1976, a figure essentially equivalent to that year's rate for majority students.[18]

Commenting on the adverse political and legal climate for affirmative action in 1978, the task force noted that

> although medical schools have not completely backed away from their efforts to increase the participation of minority students, many which had developed positive programs have appeared to modify their admissions programs and are awaiting the Supreme Court's [still pending] decision in the Bakke case.

The primary conclusion of the 1978 task force was that the size and quality of the applicant pool were two of the most critical factors affecting the number of minority students admitted. Its primary recommendation was that medical schools work with high schools and undergraduate colleges to increase the supply of academically well-prepared minority students interested in medicine.[19]

The 1978 task force made two other important recommendations. First, it increased the minority student enrollment goal, set at 12 percent in 1970, to 16 percent. This reflected a rapid increase in the minority pop-

ulation during those years, as well as the previously unaccounted-for presence of underrepresented minority groups other than blacks. Second, the task force recommended that medical schools work to increase the number of minority students in the applicant pool to 16 percent. Medical schools did not immediately act on these recommendations, but they would become the cornerstone of Project 3000 by 2000 in the 1990s (see below).[20]

The record of minorities in medical school has been good. Despite having lower average MCAT scores and undergraduate grades than whites, minority students have done well in medical school. They take slightly longer to graduate, but very few minority students drop out for academic reasons. According to AAMC enrollment statistics, 95 percent of 1992 matriculants from underrepresented minorities had either graduated or were still enrolled in 1996. Only 1.1 percent had been dismissed and 1.2 percent had withdrawn voluntarily. By comparison, 97 percent of nonminority matriculants had graduated or were still in school; 0.2 percent had been dismissed and 0.9 percent had withdrawn voluntarily.[21]

A national study of 1994 medical school graduates found that 88 percent of blacks, 95 percent of Hispanics, 97 percent of Asians, and 99 percent of whites had passed both Part 1 and Part 2 of the U.S. Medical Licensing Examination (USMLE) of the National Board of Medical Examiners six years after entering medical school.[22]

Another study published in 1997 in the *Journal of the American Medical Association* compared former students at the University of California at Davis School of Medicine who entered that school between 1968 and 1987 through affirmative action with other students from the same period. The study found that 94 percent of the affirmative action students had graduated, compared to 97 percent of all others. Although regular admission students scored slightly higher on their USMLE tests, there was no difference between the two groups in completion of residency training or evaluation of performance by residency directors. The authors of the study concluded that the affirmative action program at Davis had increased the diversity of the student population while producing no evidence of diluting the quality of graduates.[23]

Minority physicians disproportionately serve disadvantaged patients. A growing number of studies have reported essentially similar findings about minority physicians' impact on the health of the nation. One of the earliest studies, by Keith and others,[24] looked at the experiences of doctors who graduated from medical school in 1975. The authors found that minority physicians were more likely to practice in federally designated health-manpower shortage areas (12 percent versus 6 percent) and had

more Medicaid recipients in their patient populations (31 percent for blacks, 24 percent for Hispanics, and 14 percent for whites). Physicians from each racial or ethnic group disproportionately served patients from their own group.

Relying on survey data from a national sample of 15,000 patients rather than data provided by physicians, Moy and Bartman found that minority physicians were more likely than white doctors to provide care for patients who are minorities, are indigent, or have more serious health problems.[25]

A study by Xu and others of a random sample of 2,600 generalist physicians (general internists, pediatricians, and family practitioners) who graduated from medical school in 1983 or 1984 also found that black, Hispanic, and Native American doctors were much more likely than those of other races to provide care for medically indigent patients. This study statistically controlled for other variables, such as gender; the income of the physician's family of origin; whether the doctor grew up in an inner city, suburban, or rural area; and the doctor's level of indebtedness from student loans. The authors found that race and ethnicity were the most important predictors that a physician would provide care to minority and medically underserved populations.

The authors concluded that

> these findings corroborate the assumptions of those concerned with strategies for recruiting underrepresented minority students. . . .
>
> One could speculate that underrepresented minority physicians are more willing to care for underserved patients because they are sensitive to the unmet needs of the population. . . . Conversely, underrepresented minority patients may prefer to seek out physicians with similar backgrounds. In either case, medical schools might wish to implement specific strategies to recruit underrepresented minority students, as well as to encourage all students to serve underserved populations.[26]

The authors also raise the possibility that minority physicians may be more likely to provide care to poor and minority patients because they cannot establish more "desirable" practices. Findings from an AAMC survey of U.S. medical students just before their graduation in 1996 do not support this hypothesis, however. Two-thirds of underrepresented minority graduates indicated a preference to locate in a socioeconomically deprived area compared to only 16 percent of all other graduates.[27]

Joel Cantor and colleagues studied findings from a survey that asked doctors who graduated from medical school in the 1980s about their prac-

tices. The authors examined whether minority physicians were more likely to provide care to minority patients and to the medically underserved (as has been found in virtually every other study), even after controlling for other factors such as the physician's gender and socioeconomic status. They found that doctors of all races who were from low-income backgrounds were more likely than others to provide care to disadvantaged populations, but that race, ethnicity, and gender of the physician were much more powerful predictors of care to the disadvantaged.

Discussing their findings in relation to the elimination of affirmative action in California, Cantor and colleagues wrote:

> Some in the affirmative action debate have advocated a shift from using race and ethnicity to define groups for special recruitment to using "disadvantage" as the defining characteristic. Our findings do not support such a substitution.[28]

A 1996 study of black and Latino physicians in California by Komaromy and others found that communities with high concentrations of black and Hispanic residents were four times as likely as others to have a shortage of doctors, regardless of the community's income. They also found that black physicians were much more likely than others to locate in communities with a high concentration of black residents, and Latino physicians were much more likely than others to practice in largely Hispanic communities. Black physicians were more likely to provide care to Medicaid patients, and Hispanic doctors provided a disproportionate amount of care to uninsured patients. The authors concluded:

> Black and Hispanic physicians have a unique and important role in caring for poor, black and Hispanic patients in California. Dismantling affirmative action programs, as is currently proposed, may threaten health care for both poor people and members of minority groups.[29]

Project 3000 by 2000

Project 3000 by 2000 is a campaign of U.S. medical schools to increase minority enrollment. Its goal is that 3,000 underrepresented minority students will matriculate annually at U.S. medical schools.[30] The number 3,000 is based on population parity for underrepresented minorities in the United States, as were the earlier goals set by the AAMC minority task forces. Project 3000 by 2000 recognizes that aggressive recruitment, affir-

mative action in admissions, and maintaining an environment in medical schools that is hospitable to minorities are necessary strategies to achieve diversity. These strategies alone, however, have proved insufficient to reach the profession's goals for diversity.[31]

For many years, the percentage of minorities in the medical school applicant pool has remained approximately the same as their percentage among matriculants. In 1998, for example, minorities made up 11 percent of all applicants and 11.6 percent of all matriculants. To achieve population parity among matriculants—approximately 20 percent—without a comparable increase in the percentage of minorities in the applicant pool would require changes in admission policies and practices that would dramatically favor minority applicants. This seems unlikely, to say the least, in the political and legal climate of the 1990s. For this reason, Project 3000 by 2000 has called on medical schools to work in partnership with feeder high schools and colleges to increase the number of academically well-prepared minority applicants. Medical schools have responded to this call by dramatically increasing their involvement in education partnerships with minority-serving schools and colleges.[32]

After Project 3000 by 2000 was launched, the number of underrepresented minority students entering medical school increased 36 percent, from 1,485 in 1990 to 2,024 in 1994, and remained virtually unchanged in 1995. The number of minority matriculants fell substantially in 1996 and 1997, primarily because of declines in the states of California, Texas, Louisiana, and Mississippi—states where new prohibitions against affirmative action had gone into effect. Minority enrollment increased slightly in 1998 with the result that the number of minority matriculants was still 26 percent higher than in 1990.

The enrollment gains that were achieved during Project 3000 by 2000 were made possible by a 65 percent increase in minority applicants between 1990 and 1995. While we do not know exactly why the minority applicant pool rose so quickly, it is likely related to the rising popularity of medicine as a career among both minority and nonminority students, as well as to substantial science education reform efforts, including minority targeted programs of the National Science Foundation, the National Institutes of Health, medical schools, and others.

Affirmative Action in Medical School Remains Imperative

The studies summarized above document the unique role that minority physicians play in addressing the health-care needs of minorities and the

poor. Critics of affirmative action ask whether medical schools can't find other ways to address these needs without explicitly considering race and ethnicity in admissions.

There is little if any disagreement that educational reforms leading to the continued development of the minority applicant pool must be the foundation of any long-term solution to this problem. Now, and for the foreseeable future, however, large differences still exist between minorities and others on virtually all standardized tests,[33] including the MCAT.[34] To the extent that courts and politicians continue to cite the lower test scores of minorities as legitimate evidence that they are less "deserving" of educational opportunities, it is hard to imagine any short-term strategy other than race-conscious affirmative action that will be effective in producing diversity in medical schools.[35,36]

The MCAT may predict students' performance in basic science courses and on other standardized tests. But leading medical educators have long argued that there is no evidence that the MCAT predicts who will provide the kind of medical care that meets the most pressing needs of our communities.[37] "No one in their right mind would argue for admitting anyone to medical school who did not evidence the academic skills and personal qualities necessary for completing the M.D. degree," points out Jordan Cohen, president of the AAMC. However, once you move beyond the very low test scores that are predictive of academic risk, performance on the MCAT is essentially unrelated to the likelihood of successfully completing medical school.[38]

The students with the highest scores will not necessarily make the best doctors. Medical schools therefore do not consider the admissions process to be a contest among applicants for the highest test scores.

The AAMC's Jordan Cohen writes:

> Academic medicine (including the medical school admissions process) is, after all, largely about the future. It's about improving the health of future generations by educating physicians who will care for tomorrow's children, and by discovering better ways to keep tomorrow's children healthy. Given that our primary obligation to society is to furnish it with a physician work force appropriate to its needs, our mandate is to select and prepare students for the profession who, in the aggregate, bear a reasonable resemblance to the racial, ethnic, and, of course, gender profiles of the people they will serve.[39]

More than fifty professional organizations related to medicine have formed a coalition called Health Professionals for Diversity to express their support for affirmative action. Its members include the American

Medical Association, the American College of Physicians, the American College of Surgeons, the American Public Health Association, the American Academy of Pediatrics, the American Psychological Association, and the National Dental Association. Concerned about the continued ability of the medical profession to meet the nation's health-care needs, these leaders of American medicine have summed up their position as follows:

> Racial/ethnic diversity in the health professions work force is essential for the delivery of quality health care. At least for the short term, preserving the prerogative of health professions schools to consider race/ethnicity among the many factors they examine in admissions decisions is indispensable for the training of a diverse health professions work force.

Notes

1. National Research Council, *A Common Destiny: Blacks and American Society* (Washington, DC: National Academy Press, 1989), p. 67.
2. See Gary Orfield, Mark Bachmeier, David R. James, and Tamela Eitle, "Deepening Segregation in American Public Schools" (Cambridge, MA: Harvard Project on School Desegregation, April 5, 1997); James S. Coleman et al., "Equality of Educational Opportunity" (Washington, DC: Office of Education, 1966).
3. Reginald Wilson, "Affirmative Action in Higher Education," in *Minorities in Higher Education, 1995–96*, ed. Deborah J. Carter and Reginald Wilson (Washington, DC: American Council on Education, 1996), p. 37.
4. Herbert W. Nickens, Timothy Ready, and Robert G. Petersdorf, "Project 3000 by 2000: Racial and Ethnic Diversity in U.S. Medical Schools," *New England Journal of Medicine, 331* (1994), 472–476.
5. The term *minority*, when used in this paper in relation to medical education, is synonymous with *underrepresented minority*. Racial and ethnic groups recognized by the AAMC as underrepresented include blacks, Mexican Americans, mainland Puerto Ricans, and Native Americans. Individual medical schools may recognize other racial or ethnic groups as also being underrepresented.
6. Charles E. Odegaard, *Minorities in Medicine: From Receptive Passivity to Positive Action, 1966–76* (New York: Josiah Macy, Jr. Foundation, 1977), pp. 29–41.
7. See Roy K. Jarecky, "Medical School Efforts to Increase Minority Representation in Medicine," *Journal of Medical Education, 44* (1969), 912–918; Odegaard, *Minorities in Medicine*, pp. 22, 41.
8. U.S. Department of Health and Human Services, *Health Status of Minorities and Low Income Groups*, DHHS Publication No. (HRSA) HRS-P-DV 85-1 (1985), p. 41.
9. Since 1970, life expectancy at birth has increased for both blacks and whites. However, the 7.6-year racial gap that existed then had decreased only slightly to 6.6 years by 1996. *National Vital Statistics Report, 47*, No. 13 (1998).
10. Department of Health and Human Services, *Report of the Secretary's Task Force on Black and Minority Health, Vol. I: Executive Summary* (Washington, DC: Author, 1985), p. 5.
11. See Herbert W. Nickens, "The Rationale for Minority Targeted Programs in Medicine in the 1990s," *Journal of the American Medical Association, 267* (1992), 2390–

2395; Herbert W. Nickens and Jordan J. Cohen, "On Affirmative Action," *Journal of the American Medical Association, 275* (1996), 572–574.

12. Jordan J. Cohen, "Finishing the Bridge to Diversity," *Academic Medicine, 72* (1997), 105.
13. See Kenneth C. Goldberg, Arthur J. Hartz, Steven J. Jacobson, Henry Krakauer, and Alfred A. Rimm, "Racial and Community Factors Influencing Coronary Artery Bypass Graft Surgery Rates for All 1986 Medicare Patients," *Journal of the American Medical Association, 267* (1992), 1473–1477; Mark B. Wenneker and Arnold M. Epstein, "Racial Inequalities in the Use of Procedures for Patients with Ischemic Heart Disease in Massachusetts," *Journal of the American Medical Association, 261* (1989), 253–257; Edward L. Hannan, Harold Kilburn Jr., Joseph O'Donnell, Gary Lukacik, and Eileen P. Shields, "Interracial Access to Selected Cardiac Procedures for Patients Hospitalized with Coronary Artery Disease in New York State," *Medical Care, 29* (1991), 430–441; Marian E. Gornick, Paul W. Eggers, Thomas W. Reilly et al., "Effects of Race and Income on Mortality and Use of Services Among Medicare Beneficiaries," *New England Journal of Medicine, 335* (1996), 791–799; Kevin A. Schulman, Jesse A. Berlin, William Harless et al., "The Effect of Race and Sex on Physicians' Recommendations for Cardiac Catheterization," *New England Journal of Medicine, 340* (1999), 618–625.
14. For a more detailed discussion of the issues in this section, see Timothy Ready and Herbert W. Nickens, "Programs That Make a Difference," in *More Minorities in Health*, ed. Barbara H. Kehrer and Hugh C. Burroughs (Menlo Park, CA: Henry J. Kaiser Family Foundation, 1994), pp. 29–90, 143–145.
15. Odegaard, *Minorities in Medicine*, p. 26.
16. Association of American Medical Colleges, *Minority Students in Medical Education: Facts and Figures, Tenth Edition* (Washington, DC: Lois Bergeisen, 1997), pp. 70–71.
17. William E. Sedlacek and Dario O. Prieto, "Predicting Minority Students' Success in Medical Schools," *Academic Medicine, 65* (1990), 161–166.
18. *Report of the Association of American Medical Colleges Task Force on Minority Student Opportunities in Medicine* (Washington, DC: AAMC, 1978), p. 14.
19. *Report of the Association of American Medical Colleges Task Force*, p. 21.
20. Robert G. Petersdorf, Katherine Turner, Herbert W. Nickens, and Timothy Ready, "Minorities in Medicine: Past, Present and Future," *Academic Medicine, 65* (1990), 633–670.
21. Association of American Medical Colleges, *Minority Students in Medical Education*, p. 77.
22. Stephen Case, David Swanson, Donna Ripkey et al., "Performance of the Class of 1994 in the New Era of USMLE," *Academic Medicine, 71*, No. 10 (1996), S91–S93.
23. Robert C. Davidson and Ernest L. Lewis, "Affirmative Action and Other Special Consideration Admissions at the University of California, Davis, School of Medicine," *Journal of the American Medical Association, 278* (1997), 1153–1158.
24. Stephen N. Keith, Robert M. Bell, August G. Swanson, and Albert P. Williams, "Effects of Affirmative Action in Medical Schools: A Study of the Class of 1975," *New England Journal of Medicine, 313* (1985), 1519–1525.
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27. Association of American Medical Colleges, *Minority Students in Medical Education*, pp. 36–37.
28. Joel Cantor, Erika L. Miles, Laurence C. Baker, and Dianne C. Baker, "Physician Service to the Underserved: Affirmative Action in Medical Education," *Inquiry, 33* (1996), 167–180.
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